

AMENDMENTS TO THE CLAIMS

The following listing of claims replaces all previous versions, and listings, of claims in the present application.

Please cancel claims 6-8 without prejudice or disclaimer.

Please amend claims 1-5 and add new claims 9-15 as follows:

1. (Currently Amended) A brushless motor used in a blower of a vehicle air-conditioning system, comprising:

a stator with a plurality of sets of excitation coils therearound;

a rotor;

a sensor magnet having n poles ($n \geq 2$) rotated integrally with said rotor; and

a first ~~magnetic sensor~~ Hall element, a second ~~magnetic sensor~~ Hall element, and a third ~~magnetic sensor~~ Hall element, each for detecting a magnetic field of said sensor magnet, and a substrate including said first, second, and third Hall elements, power supply terminals for said excitation coils and a power supply control circuit for controlling power supplied to said excitation coils based on output signals from said first, second, and third Hall elements,

wherein said substrate is assembled such that said first, second, and third Hall elements are positioned in close proximity to said sensor magnet, and

wherein, on said substrate, an angular distance between the first and second ~~magnetic sensor~~ Hall elements, and an angular distance between the second and third ~~magnetic sensor~~ Hall elements are set to be a smallest possible one of angles less than 180° that are obtained by

$(3m + 1) \cdot \theta$ and $(3m + 2) \cdot \theta$ a, where m is an integer and equal to or larger than zero, and θ a is a basic minimum mechanical angle obtained by $360^\circ/(n \cdot 3)$.

2. (Currently Amended) The brushless motor according to claim 1, further comprising:

phase adjusting means for generating position signals having a mutual phase difference of electrical angle of 120° by adjusting phases of output signals from said first, second, and third ~~magnetic sensors~~ Hall elements.

3. (Currently Amended) The brushless motor according to claim 2, wherein, when said angular distance of mechanical angle is one of the angles less than 180° that are obtained by $(6m + 3 \pm 2) \cdot \theta_a$, said phase adjusting means inverts phases of output signals of said first and third ~~magnetic sensors~~ Hall elements to produce position signals while using an output signal of said second ~~magnetic sensor~~ Hall element as a position signal without inverting its phase.

4. (Currently Amended) The brushless motor according to claim 2, wherein when said angular distance of mechanical angle is one of the angles less than 180° that are obtained by $(6m + 3 \pm 2) \cdot \theta_a$, said phase adjusting means inverts the phase of an output signal of said second ~~magnetic sensor~~ Hall element to produce a position signal while using output signals of said first and third ~~magnetic sensors~~ Hall elements as position signals without inverting their phases.

5. (Currently Amended) The brushless motor according to claim 3, wherein ~~said first, second, and third magnetic sensors are hole elements, and~~ said phase adjusting means performs phase inversion by reversely connecting signal output terminals of said ~~hole~~ first, second, and third Hall elements.

6. (Canceled)

7. (Canceled)

8. (Canceled)

9. (New) A three-phase brushless motor, comprising:

a rotor having an output shaft;

a stator having a plurality of excitation coils and power supply terminals respectively connected to each of the plurality of excitation coils;

a sensor magnet for rotating integrally with the rotor and being attached to the output shaft;

a circuit board having a power supply control circuit and a plurality of Hall elements mounted thereon, the plurality of Hall elements having connection terminals corresponding to the power supply terminals and being arranged with a mechanical angular spacing of less than 180° around the output shaft.

10. (New) The three-phase brushless motor of claim 9, wherein output terminals of some of the plurality of Hall elements are reversely connected for inverting phases of respective output signals.

11. (New) The three-phase brushless motor of claim 9, wherein the mechanical angular spacing is obtained by $(3m + 1) \cdot \theta_a$ and $(3m + 2) \cdot \theta_a$, where m is an integer and equal to or larger than zero, and θ_a is a basic minimum mechanical angle obtained by $360^\circ/(n \cdot 3)$.

12. (New) The three-phase brushless motor of claim 9, further comprising:

phase adjusting means for generating position signals having a mutual phase difference of electrical angle of 120° by adjusting phases of output signals from said plurality of Hall elements.

13. (New) The brushless motor according to claim 12, wherein, when an angular distance of mechanical angle is one of the angles less than 180° that are obtained by $(6m + 3 \pm 2) \cdot \theta_a$, said phase adjusting means inverts phases of output signals of at least two of the plurality of Hall elements to produce position signals while using an output signal of another of the plurality of Hall elements as a position signal without inverting its phase.

14. (New) The brushless motor according to claim 12, wherein when an angular distance of mechanical angle is one of the angles less than 180° that are obtained by $(6m + 3 \pm 2) \cdot \theta_a$, said phase adjusting means inverts the phase of an output signal of one of the plurality of Hall elements to produce a position signal while using output signals of at least two other of the plurality of Hall elements as position signals without inverting their phases.

15. (New) The brushless motor according to claim 13, wherein said phase adjusting means performs phase inversion by reversely connecting signal output terminals of said plurality of Hall elements.